

FIG.1A

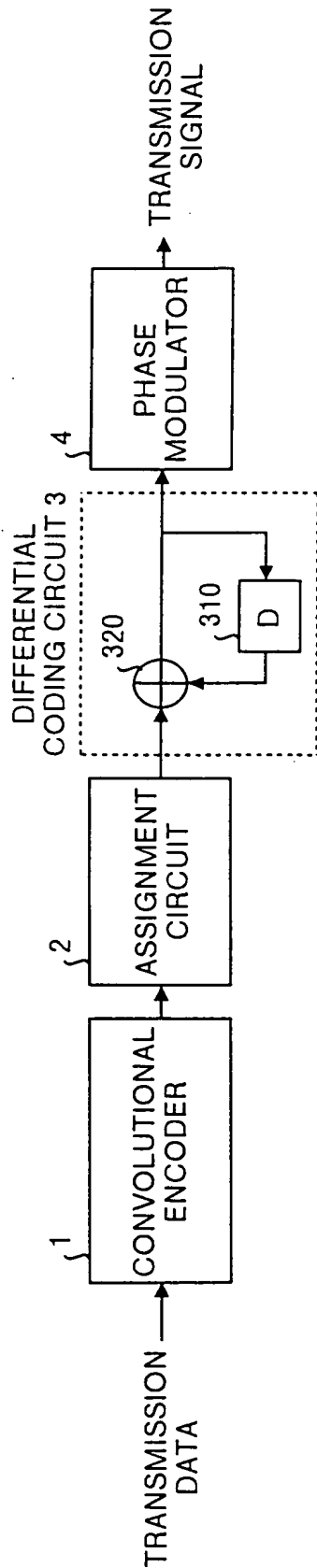


FIG.1B

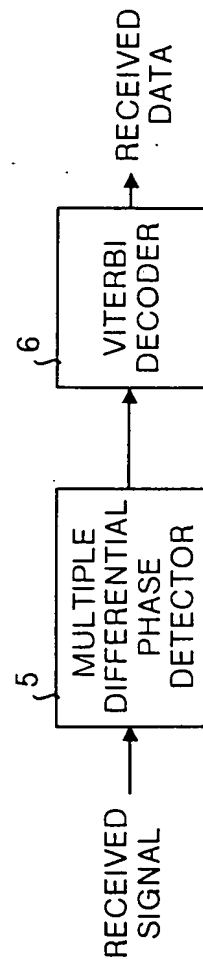


FIG.2

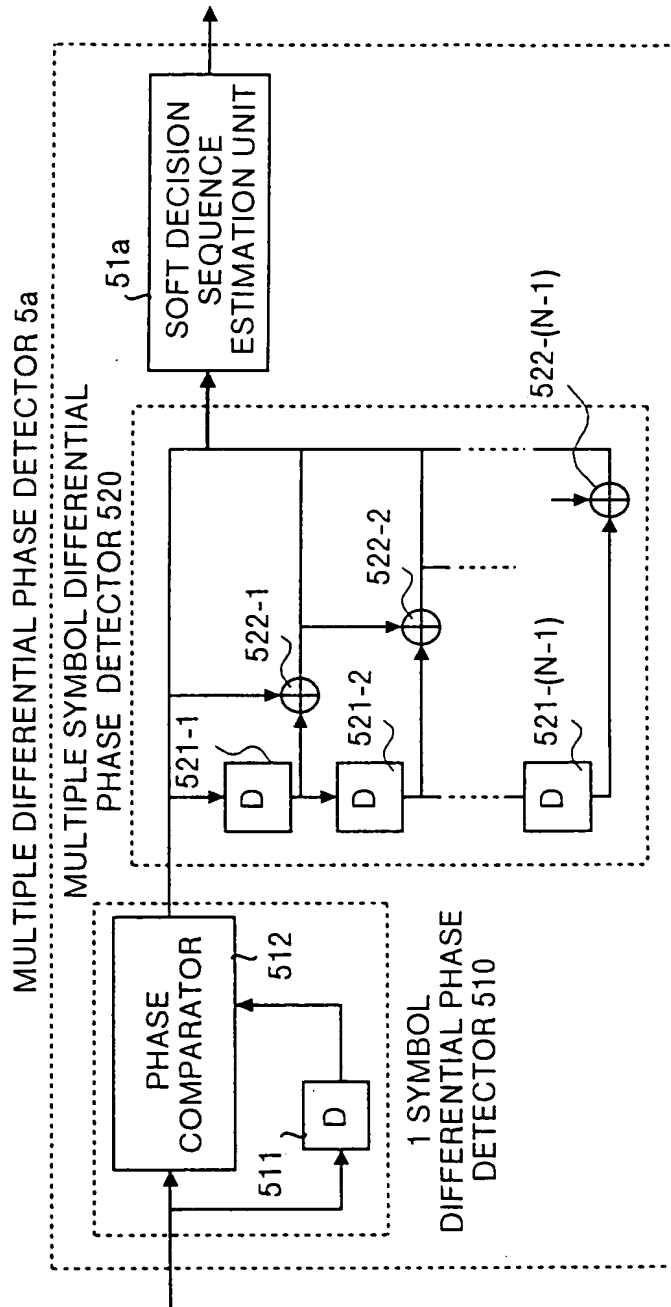


FIG.3

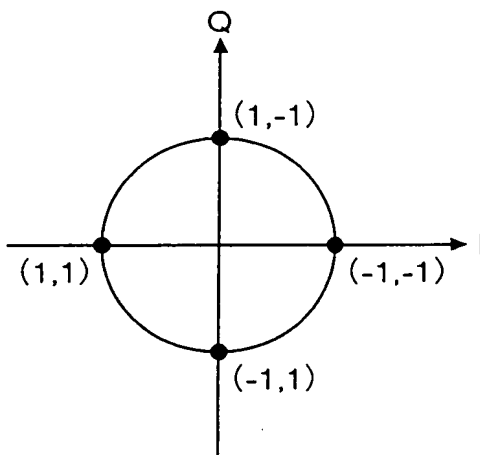


FIG.4

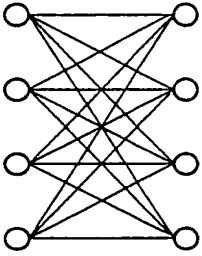
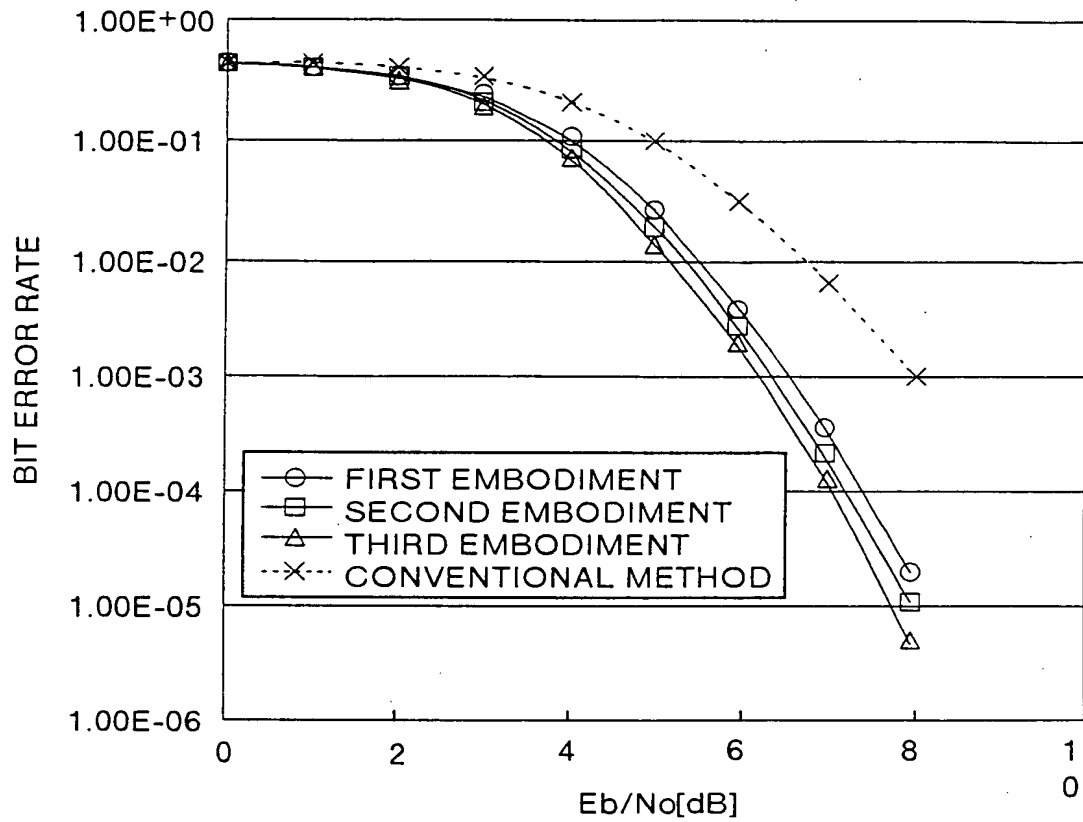
	$\Delta \theta_i$		$\Delta \theta_i$	CONVOLUTIONAL -CODED DATA
STATE 0	0		0	(-1,-1)
STATE 1	$\pi/2$		$\pi/2$	(1,-1)
STATE 2	$\pi$		$\pi$	(1,1)
STATE 3	$3\pi/2$		$3\pi/2$	(-1,1)

FIG.5



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FIG.6

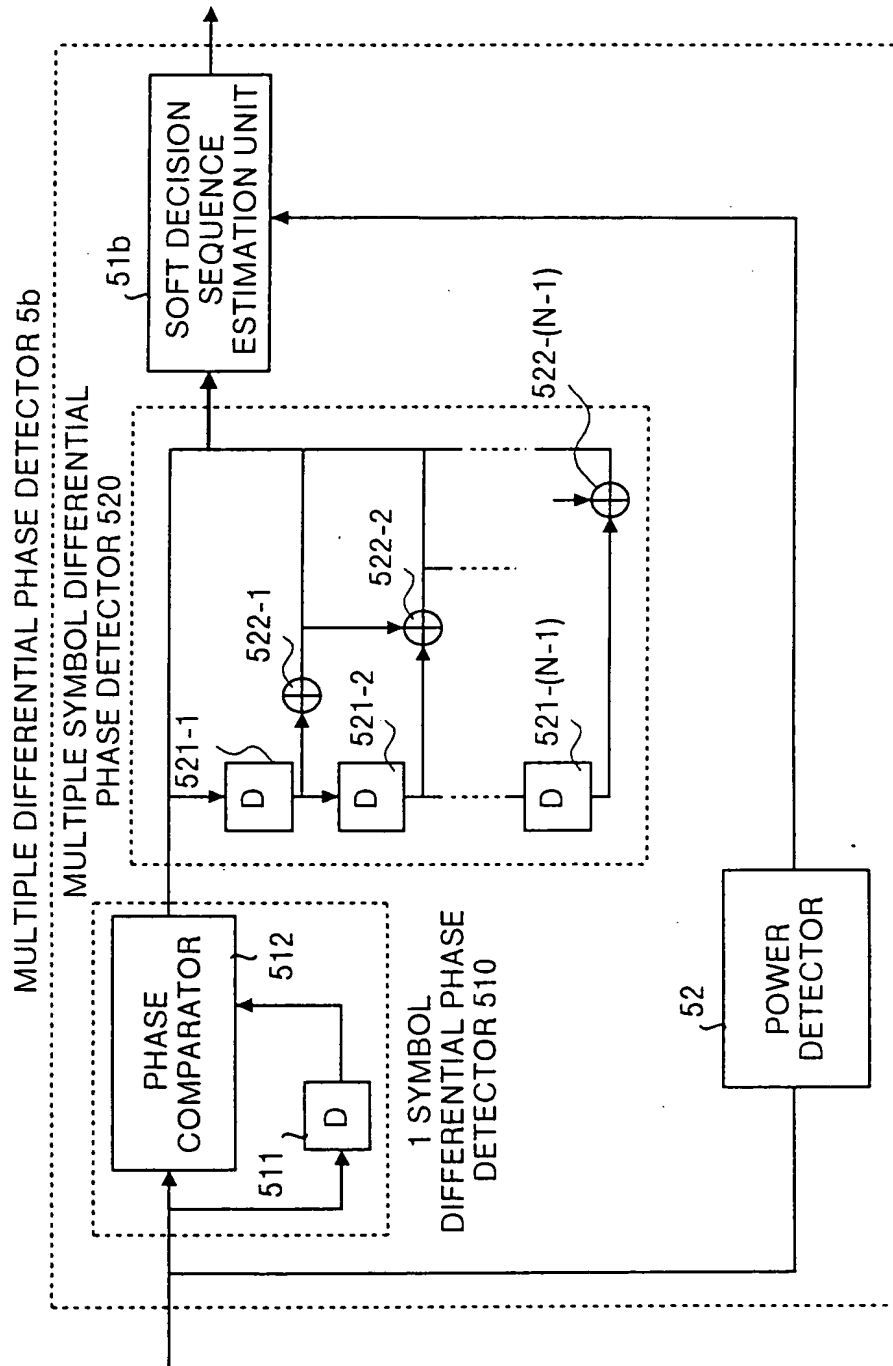
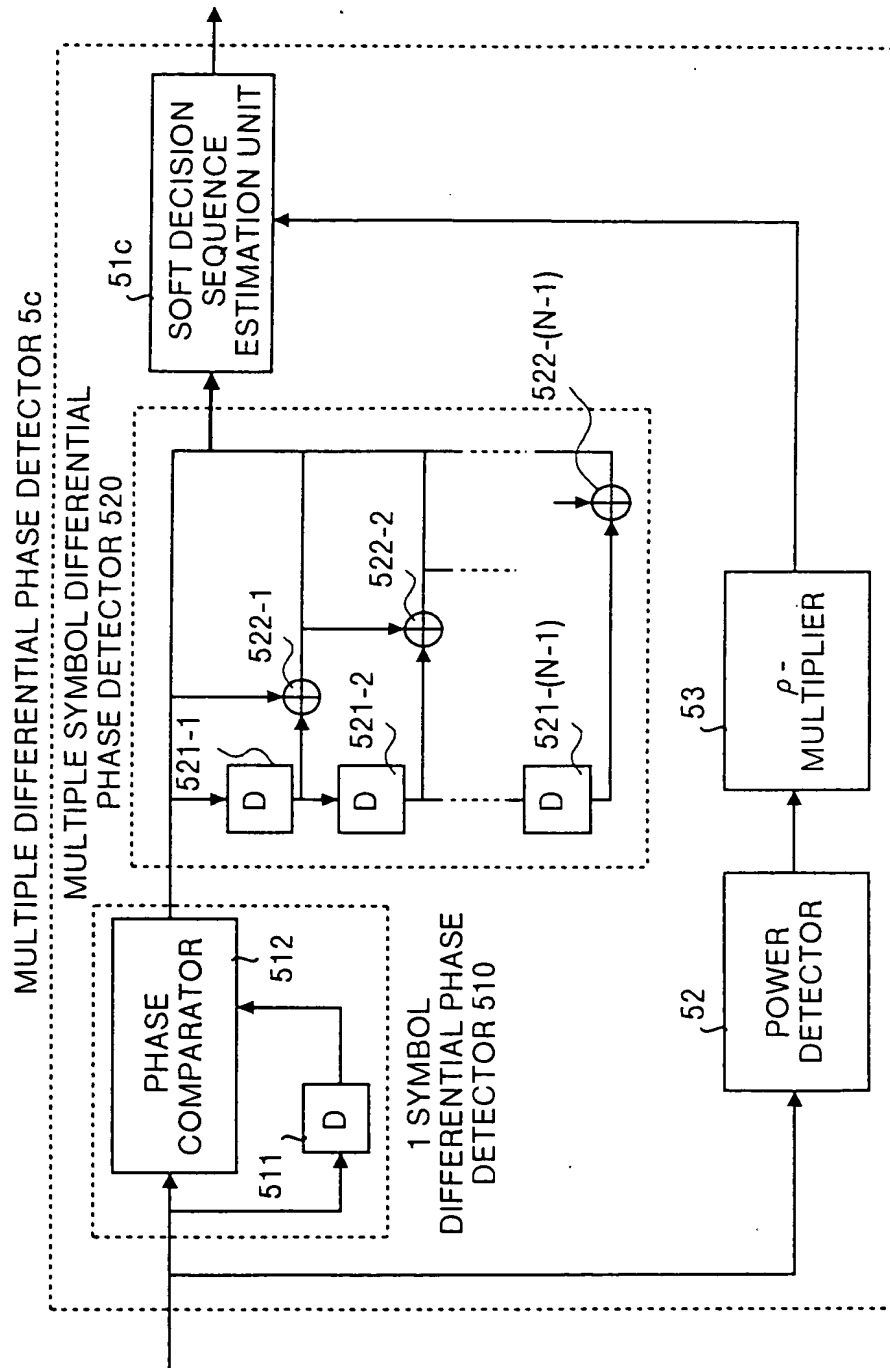


FIG.7



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FIG. 8A

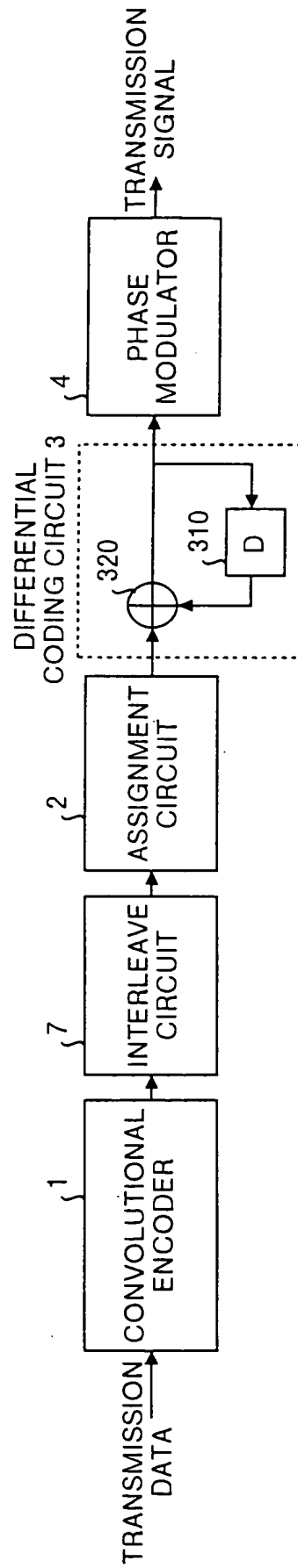


FIG. 8B

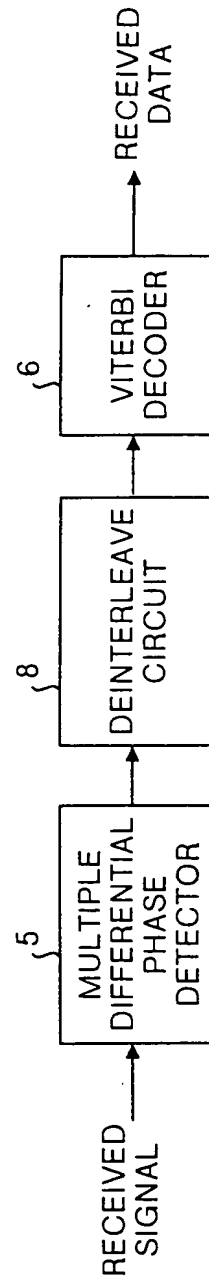


FIG.9

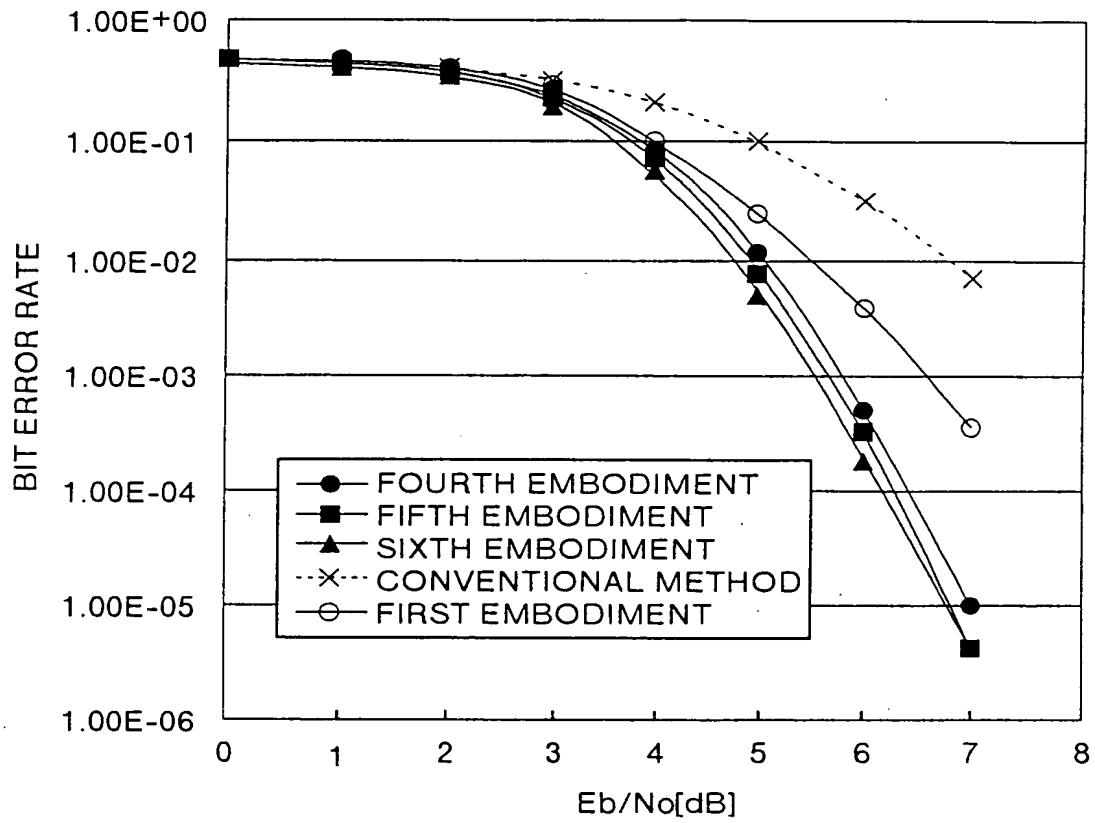




FIG. 10

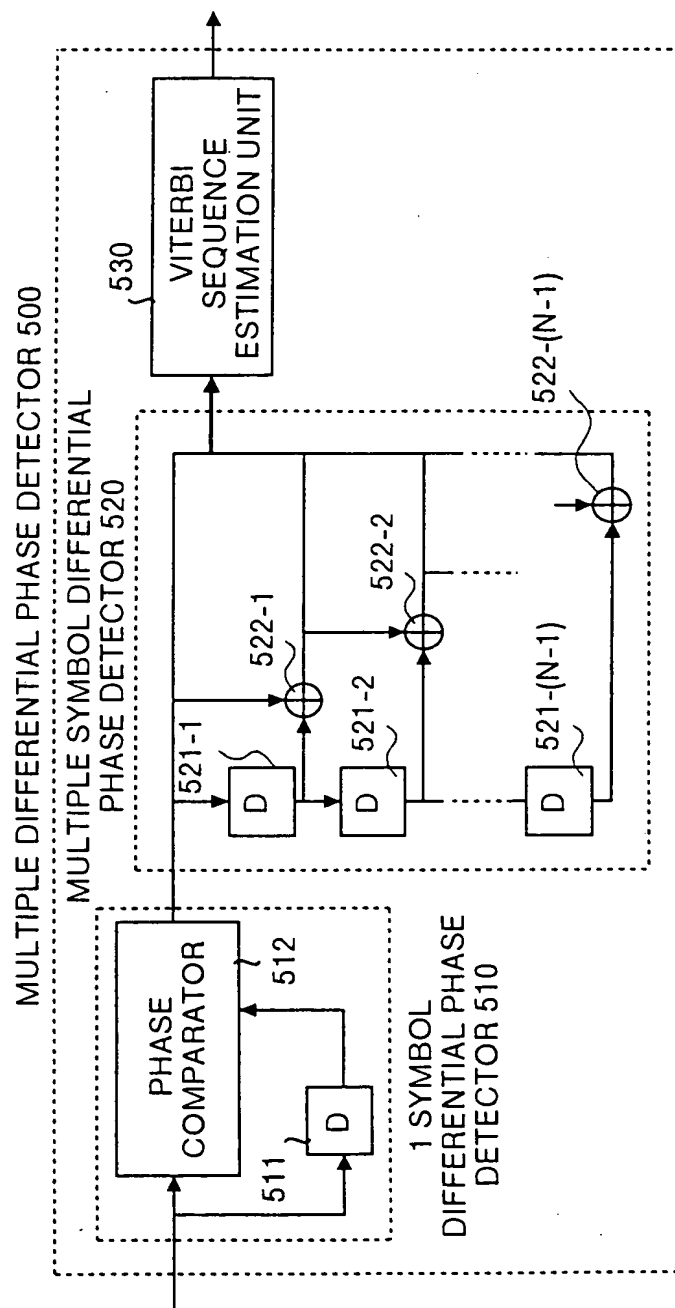


FIG.11

$(P_i, Q_i)$	$\Delta \theta = F(P_i, Q_i)$
$(-1, -1)$	0
$(-1, 1)$	$\pi / 2$
$(1, 1)$	$\pi$
$(1, -1)$	$3 \pi / 2$